

## **Comment on: A National Broadband Plan for Our Future GN Docket No. 09-51**

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To the FCC,

On April 8, acting chairman Michael Copps asked in his introductory statement for comments on questions and problems that the Notice of Inquiry misses. This comment brings up unintended consequences of the NBP, as framed.

The use of wireless technologies has increased exponentially in the last few decades, much beyond any prior use in the human experience. The biological effects of these technologies, such as Wi-Fi, WiMAX, and Broadband over Powerlines (BPL) have not yet been studied. However, the radiation from cell phones and cell towers is similar, so it is reasonable to consider what has been learned. And since one can expect a Wi-Fi equipped PC to be in use more than a cell phone, stronger effects are plausible.

In the past decade, many independent researchers have found that there are biological effects from cell phones and other wireless devices. They are not benign, as hitherto thought.

One example is the research group around Professor Leif Salford at the University of Lund, Sweden. This group was the first to show that the important blood-brain barrier, that protects the brain, becomes leaky following cell phone usage.

This research has now been verified about two dozen times.

Other noted researchers are Henry Lai at the University of Washington, Leeka Kheifets at UCLA, Ronald Herberman at the University of Pittsburgh and others.

Some research has put plausible links between a range of illnesses that have mushroomed in the last decades – in lockstep with the increasing use of wireless technologies. Diseases such as autism, Alzheimer's, ADD/ADHD and others are some examples.

Many researchers, as well as thousands of doctors, have issued public appeals to reconsider the unbridled use of wireless technologies. The safety of which is based on decades-old assumptions, that are now known to be false.

According to one study, about 65% of medical studies by independent researchers show biological effects. Meanwhile, studies financed by the telecom industry show the opposite. This repeats the pattern of the past, with tobacco, asbestos and various other

dangers to the public health that are now widely accepted, but once too were controversial. This should be kept in mind when considering all relevant studies.

A small subset of the population is directly affected by radiation from cell phones, Wi-Fi transmitters, etc. This emerging disease is still controversial and not yet well understood. It goes under several names; the research community usually refers to it as electromagnetic hypersensitivity, EHS.

This vulnerable population could be directly affected by a wireless build-out. The more severe cases have moved to rural areas to avoid the electrosmog of more populated areas. They could be forced to move again.

Let us not repeat the costly mistakes of the past. Any national broadband plan should fully consider the health consequences of the technologies. These costs should not be externalized, not pushed over on innocent people.

This will probably mean no funding, and hopefully some restrictions, on further deployment of Wi-Fi, WiMAX and other radiating technologies, including Broadband over Powerlines (which incidentally turns powerlines into giant antennas). Instead, safer technologies, such as copper, fiber optic and satellite systems should be promoted.

The smart grid should also be re-evaluated, to avoid placing wireless transmitters in every household.

If omitting wireless technologies is politically impossible, at least instigate the following common sense rules:

- No transmitters within 1000 ft. of a residence
- No transmitters within 1500 ft. of a school, daycare or medical facility
- Allow communities to opt-out, which is currently prohibited by the Telecommunications Act of 1996, Section 704
- Allow people, with a doctor's note, to be free of any smart grid transmitters

One community has already enacted similar policies. Please see City of Arcata Municipal Code, section 9.44.060.A.3 at [http://www.cityofarcata.org/images/stories/10-03-08-luc\\_04.final.10-08.pdf](http://www.cityofarcata.org/images/stories/10-03-08-luc_04.final.10-08.pdf).

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